

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: VANIK, Jiri

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TITLE: PERISTALTIC ROTATION PUMP WITH EXACT, ESPECIALLY MECHANICALLY  
LINEAR DOSAGE

Amendment A: CLAIM AMENDMENTS

Claims 1 - 13 (canceled). These claims are canceled by the present amendment.

14. (new) A peristaltic pump for providing mechanically linear dosing, the peristaltic pump comprising:

an outer housing having an annular interior surface with a first supporting surface and a second supporting surface extending from said interior surface toward an exterior of said outer housing, said annular interior surface defining a work roll around said annular interior surface path;

a tubular member having an input end and an output end, said tubular member having a first portion extending along said front side 16 and a second supporting surface extending along said second supporting surface, said tubular member having another portion extending along said annular interior surface, said working path having a groove extending therealong, said tubular member received in said groove, said outer housing having an occlusal surface formed on opposite sides of said groove;

a plurality of pressure rollers rollably mounted so as to roll around said annular interior surface;

a triple-armed rotor having hollow arms extending therefrom, said rotor being

rotatably mounted within said annular interior surface of said outer housing, said rotor having pressure blocks resiliently slidably mounted respectively in said hollow arms, said plurality of pressure blocks so as to extend outwardly of said hollow arms;

a stepper motor having a shaft extending therefrom, said rotor affixed to said stepper motor.

15. (new) The peristaltic pump of Claim 14, each of said first supporting surface and said second supporting surface extending outwardly at an approximately 90° angle with respect to said annular interior surface.

16. (new) The peristaltic pump of Claim 14, said occlusal surface being elevated above a bottom of said groove by a distance less than twice a width of said tubular member.

17. (new) The peristaltic pump of Claim 14, each of said pressure blocks being split by a longitudinal portion so as to define a first part and a second part, each of said first part and said second part having a spring therein, each of said pressure blocks having a pin extending transversely therefrom, said pin slidably received in a slot formed in said hollow arms, the springs bearing against a body affixed adjacent said shaft and bearing against a back wall of the pressure block adjacent the pressure roller, said body having a trilateral prism shape.

18. (new) The peristaltic pump of Claim 17, said body having a rounded corners, said rounded corners respectively received into sockets formed in an interior of said rotor, said body having a cylindrical protrusion extending therefrom, said body having a securing groove and an input groove formed at a back thereof receiving a securing pin extending from said shaft, said securing groove having a width at an end opposite said cylindrical protrusion that is less a diameter of said securing pin, said pin of the pressure blocks received in a respective groove of a control element,

said control element threadedly connected to said cylindrical protrusion.

19. (new) The peristaltic pump of Claim 14, the pressure block having guiding grooves formed at an end thereof adjacent the pressure roller.

20. (new) The peristaltic pump of Claim 14, the pressure roller having a cylindrical shape.

21. (new) The peristaltic pump of Claim 20, said sliding mounting having wiper blades formed at said end of said pressure block adjacent the pressure roller, said sliding mounting having sockets formed adjacent said wiper blades.

22. (new) The peristaltic pump of Claim 14, said pressure roller being an electrical conductor, said outer housing having a first contactor positioned adjacent said occlusal surface and said first supporting surface and a second contactor positioned adjacent a junction of said occlusal surface and said second supporting surface, said pressure roller being movable so as to contact said first and second contactors.

23. (new) The peristaltic pump of Claim 14, the pressure roller being magnetized.